R E M A R K S

Claims 1-44 stand as originally filed.

Claims 1-44 were considered in the Office Action. Claims 1-7, 11-14, 16-21, 29-37 and 41-43 stand rejected under 35 U.S.C. 102(e) as being anticipated by Baty et al., U.S. Patent 5,243,704. Claims 8-10, 15, 22-28 and 38-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baty in view of Kim, U.S. Patent 5,892,932. Claim 44 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Baty.

Applicant believes that the currently pending claims are not anticipated by or obvious over the cited references for at least the reasons set forth below and respectfully requests reconsideration.

The Invention of Claim 1

The cited references do not disclose or suggest:

"A multi-fabric interconnection system, comprising:

a plurality of first nodes interconnected as a balanced incomplete block design of the form 2-(v, k, 1) = b, wherein v first nodes, arranged in b groups of k first nodes, are interconnected such that each pair of first nodes appears in only one group of the b groups, and

a plurality of first forwarding nodes configured to interconnect the plurality of first nodes;

a plurality of sets of second nodes, wherein each second node is connected to one of the first nodes, and wherein each of the second nodes is interconnected to every other second node."

(Claim 1, emphasis added)

At least the above highlighted features are not anticipated or suggested by the cited references and would not have been obvious to a person with ordinary skill in the art having the cited references. The Office Action mailed July 26, 2007 indicates that Baty's nodes (e.g., 12) correspond with the claimed first nodes, that Baty's busses (e.g., 26) correspond with the claimed first forwarding nodes, and that Baty's ports (e.g., 12a) correspond with the claimed second nodes. Applicant respectfully disagrees, and believes that this broad an interpretation of the term "node" leaves the term with practically no meaning at all. Applicant has applied a broad definition to the term "node". For example, paragraph 54 gives a number of examples for end nodes: "In doing so, each end node, such as a **computer**, **network-attached I/O device**, or **processor**, has more than two network interface ports." Clearly, however, the term node is not used by the Applicant to refer to a bus or a port as in the cited portions of Baty. In fact, paragraph 54 of Applicant's specification indicates that according to one disclosed design principle, an end node has more than two network interface ports. It would be nonsensical to interpret Baty's ports (e.g., 12a) as a node of claim 1 when that port might contain more than two ports itself. Furthermore, Baty and Applicant's specification both use and distinguish the terms "node", "port" and "bus" (see Baty col. 3, lines 62-67 and Applicant's paragraph 3), so to interpret Baty's nodes, ports and busses all as nodes ignores the definitions of these terms both in Applicant's specification and in Baty. Speaking generally about the different technology contemplated by Baty and Applicant's invention, Baty is directed at a switchless, direct interconnection network, while Applicant's invention is directed at a design methodology for switched multi-fabric networks of various topologies and providing for redundant

paths to route around congestion. (See, e.g., paragraphs 2, 4 and 38.)

Applicant therefore believes that claim 1 is allowable over the cited references and respectfully requests reconsideration.

Dependent claims 2-15 depend ultimately upon independent claim 1 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 2-15 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

The Invention of Claim 16

The cited references do not disclose or suggest:

"A method for configuring a communications network, comprising:

configuring interconnections of a plurality of first nodes as a balanced incomplete block design of the form 2-(v, k, 1) = b, wherein v first nodes, arranged in b groups of k first nodes, are interconnected such that a pair of first nodes appears in only one group of the b groups; and

configuring interconnections of a plurality of sets of second nodes to the plurality of first nodes, wherein each second node is interconnected to every other second node."

(Claim 16, emphasis added)

Applicant repeats the arguments for allowability set forth above with respect to claim 1, but specifically directed to the method set forth in claim 16. Again, Baty does not

disclose or suggest a plurality of sets of second nodes being interconnected with a plurality of first nodes. Baty's ports (e.g., 12a) are not nodes as defined either in Applicant's specification or by Baty.

Dependent claims 17-31 depend upon independent claim 16 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 17-31 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

The Invention of Claim 32

The cited references do not disclose or suggest:

"A method for converting a mathematical design to a physical communications network, comprising:

providing a mathematical representation of a plurality of connected first nodes in the form of a balanced incomplete block design defined as 2-(v, k, 1) = b, wherein v first nodes, arranged in b groups of k first nodes, are interconnected such that a pair of first nodes appears in only one group of the b groups;

converting the mathematical representation to a physical design in which a plurality of first forwarding nodes interconnect the plurality of first nodes; and

assigning a plurality of sets of second nodes to one of the first nodes; such that each of the second nodes is interconnected to every other node."

(Claim 32, emphasis added)

Applicant repeats the arguments for allowability set forth above with respect to claim 1, but specifically directed to the method set forth in claim 32. Again, Baty does not disclose or suggest a plurality of first forwarding nodes interconnecting a plurality of first nodes. Baty's busses (e.g., 26) are not nodes as defined either in Applicant's specification or by Baty.

Dependent claims 33-44 depend upon independent claim 32 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 33-44 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

In view of the above, all of the claims are believed to be in condition for allowance, and the Applicants respectfully request that a timely Notice of Allowance be issued.

Respectfully submitted,
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